

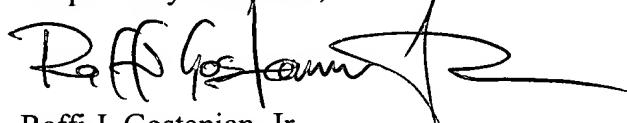
## REMARKS

Attached hereto is a marked-up version of the changes made to the specification and the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Enclosed is a check in the amount of \$504.00 to cover the additional claims (6 additional independent claims - only 1 independent claim was initially filed - X \$84.00 = \$504.00). The Assistant Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-1752.

A prompt examination and allowance is respectfully solicited. If there are any additional questions, please contact me at your earliest convenience.

Respectfully submitted,



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## VERSION WITH MARKINGS TO SHOW CHANGES MADE

### In the Specification:

#### **(1.) The following changes were made to paragraph 32, page 6:**

[0032] The video surveillance system of the subject invention is specifically adapted for distributing digitized camera video on a real-time or near real-time basis over a LAN and/or a WAN. As shown in Figure 1, [T]he system uses a plurality of video cameras C1, C2...Cn, disposed around a facility to view scenes of interest. Each camera captures the desired scene, digitizes the resulting video signal at a dedicated encoder E1, E2...En, respectively, compresses the digitized video signal at the respective compressor processor P1, P2...Pn, and sends the resulting compressed digital video stream to a multicast address router R. One or more display stations D1, D2...Dn may thereupon view the captured video via the intervening network N. The network may be hardwired or wireless, or a combination, and may either a Local Area Network (LAN) or a Wide Area Network (WAN), or both.

#### **(2.) The following changes were made to paragraph 38, page 7:**

[0038] When invoking Media Player to view the streaming camera video, it is first necessary to inform Media Player of the file length. Since the camera produces a stream rather than a discrete file, the file length is undefined. In order to overcome this problem all of the Media Player's 63-bit file length variables are set to 1. Media Player compares this value to a free-running counter that counts ticks of a 10 MHz clock. This counter is normally initialized to zero at the beginning of the file. Given 63 bits, this permits a maximum file length of approximately thirty thousand years, longer than the useful life of the product, or presumably its users. This effectively allows the system to play streaming sources.

#### **(3.) The following changes were made to paragraph 41, page 8:**

[0041] Any given source of encoded video may be viewed by more than one client. This could hypothetically be accomplished by sending each recipient a unique copy of the video stream. However, this approach is tremendously wasteful of network bandwidth. A superior approach is to transmit one copy of the stream to multiple recipients, via Multicast Routing. This approach is

commonly used on the Internet, and is the subject of various Internet Standards (RFC's). In essence, a video source sends its video stream to a Multicast Group Address, which exists as a port on a Multicast-Enabled network router or switch. The router or switch then forwards the stream only to IP addresses that have known recipients. Furthermore, if the router or switch can determine that multiple recipients are located on one specific network path or path segment, the router or switch sends only one copy of the stream to that path.

**(4.) The following paragraph 47, page 9 was deleted:**

[0047] First, the client requesting the video stream identifies the IP address of the desired encoder. This is normally done via graphical methods, described more fully below. Once the encoder's IP address is known, the client obtains a small file from an associated server, using FTP, TFTP or other appropriate file transfer protocol over TCP/IP. The file, as received by the requesting client, contains various operating parameters of the encoder including frame rate, UDP bitrate, image size, and most importantly, the Multicast Group Address associated with the encoder's IP address. The client then launches an instance of Media Player, initializes the previously described front end filter, and directs Media Player to receive the desired video stream from the defined Multicast Group Address.]

**(5.) The following changes were made to paragraph 53, page 11:**

[0053] Streaming video signals tend to be bandwidth-intensive. The subject invention provides a method for maximizing the use of available bandwidth by incorporating multiple resolution transmission and display capabilities. Since each monitor is capable of displaying up to 16 [ ] separate video images, the bandwidth requirements of the system can potentially be [ ] enormous. It is thus desirable to minimize the bandwidth requirements of the system.

**(6.) The following changes were made to paragraph 55, page 12:**

[0055] Referring now to Figure 4, [W] when the user has configured the video display area to display a single image, that image is obtained from the desired encoder using the higher-resolution, higher-bitrate stream. The same is true when the user subdivides the video display area into a 2 x 2 array; the selected images are obtained from the high-resolution, high-bitrate streams from the selected encoders. The network bandwidth requirements for the 2 x 2 display array are four times

the bandwidth requirements for the single image, but this is still an acceptably small usage of the network bandwidth.

**Please amend the Abstract as follows:**

Continuous streaming video is conditioned for display at a remote monitor adapted for receiving and playing a streaming video file of a discrete length. The continuous streaming video has no known beginning of data signal and no known end of data signal, and an arbitrary beginning of data signal is assigned to the streaming video in mid-stream and an arbitrary end of data signal is assigned to the streaming video for identifying the length of the video stream and for making it compatible with the display platform. The continuous streaming video may be time stamped, and the beginning of data signal may be arbitrarily assigned a zero value for identifying an artificial beginning of the file. Specifically, [the] each time stamp received may be calculated by resetting each [time stamp] received time stamp with a value of the current time stamp minus first time stamp received, whereby the first time stamp received is set to zero and additional time stamps are counted from the first time stamp received. The encoded video signal may be viewed by more than one user wherein the streaming video signal is sent to a multicast group address for forwarding the stream identified recipients, with a multicast routing technique used for determining that multiple recipients are located on one specific network path or path segment, wherein only one copy of the video signal is sent along that path.

**In the Claims:**

**Claim 3 has been amended as follows:**

3. The method of claim 2, wherein the zero value is achieved by resetting each [time stamp] received time stamp with a value of the current time stamp minus first time stamp received, whereby the first time stamp received is set to zero and additional time stamps are counted from the first time stamp received.

**Claim 10 has been amended as follows:**

10. The method of claim 9, including the step of assigning dual level addresses to the streaming video stream, whereby the recipient selects the video to be received, by first [identifies]

identifying the IP address of the desired source of the streaming video signal and then obtaining an appropriate file transfer protocol from the source.

**Claims 13-20, which contain no new matter, are added:**

13. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

- a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and
- b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;
  - wherein the continuous streaming video is time stamped; and
  - wherein the beginning of the data signal is assigned by arbitrarily assigning a zero value to a first time stamp received.

14. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

- a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and
- b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;
  - wherein the continuous streaming video is time stamped;
  - wherein the beginning of the data signal is assigned by arbitrarily assigning a zero value to a first time stamp received; and
  - wherein the zero value is achieved by resetting each received time stamp with a value of the current time stamp minus first time stamp received, whereby additional time stamps are counted from the first time stamp received.

15. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

- a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and
  - b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;
    - wherein the continuous streaming video is time stamped;
    - wherein the beginning of the data signal is assigned by arbitrarily assigning a zero value to a first time stamp received;
    - wherein the zero value is achieved by resetting each received time stamp with a value of the current time stamp minus first time stamp received, whereby additional time stamps are counted from the first time stamp received; and
    - wherein the continuous streaming video is playable on a media player utilizing the arbitrary reset to zero step for the first time stamp received.

16. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

- a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and
  - b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;

wherein the end of data signal is set at a sufficiently high level to accommodate a functional life of the data signal; and

wherein the end of data signal is arbitrarily set at the highest number achievable by a media player platform.

17. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

- a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and
  - b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;

wherein an additional user plays a streaming video already in progress using an additional media player, the method further comprising the steps of examining and modifying data being passed from a network and formulating an artificial beginning of data signal thereby by permitting an additional user to access the video already in progress by providing a recognizable beginning of file signal.

18. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and

b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;

wherein the encoded video signal may be viewed by more than one client, and wherein the streaming video signal is sent to a multicast group address for forwarding the stream only to known recipients, wherein a multicast routing technique is used for determining that multiple recipients are located on one specific network path or path segment, and wherein only one copy of the video signal is sent along that path.

19. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream; and

b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream;

wherein the encoded video signal may be viewed by more than one client, and wherein the streaming video signal is sent to a multicast group address for forwarding the stream only to known recipients, wherein a multicast routing technique is used for determining that multiple recipients are located on one specific network path or path segment, and wherein only one copy of the video signal is sent along that path; and

c. Assigning dual level addresses to the streaming video stream, whereby the recipient selects the video to be received.

20. (new) A method for playing a continuous streaming video data signal with no known beginning of the data signal and no known end of the data signal, the method comprising the steps of:

- a. Assigning an arbitrary beginning of the data signal to the streaming video in mid-stream;
- b. Assigning an arbitrary end of the data signal to the streaming video for identifying the length of the video stream; and
- c. Playing the streaming video from the beginning of the data signal to the end of the data signal.